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THE DISTRIBUTION OF THE LIMPKIN AND ITS STAPLE FOOD, POMACEA

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The note by Frederick V. Hebard in the April issue of *The Oriole* concerning the Limpkin (*Aramus scolopaceus pictus*) in Charlton and Camden Counties, Georgia, brings to mind a very interesting correlation between the distribution of the bird and that of its principal food—the large fresh-water snails of the genus *Pomacea* (formerly and better known as *Ampullaria*).

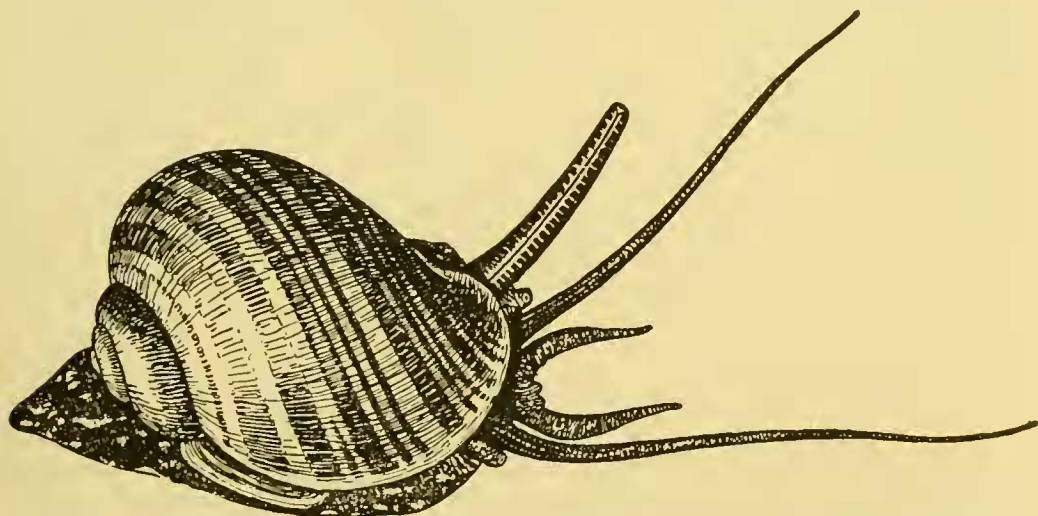


FIG. 1. *Pomacea paludosa* (Say), from Florida. Life-size drawing by Miss Helen Winchester; courtesy of *The Aquarium*.

Since the Limpkin is dependent primarily upon these snails for its existence (*cf.* Cottam, *Wilson Bulletin*, vol. 48, p. 11, 1936), it can not be expected to wander far, or remain long, beyond the range of *Pomacea*. Records in the literature and specimens in the Academy of Natural Sciences of Philadelphia (kindly placed at my disposal by Dr. H. A. Pilsbry and Mr. E. G. Vanatta) show that the genus *Pomacea* is widely distributed over practically the

¹ Reprinted, by permission, from *The Oriole*, vol. I, pp. 21-23, July, 1936.

entire Florida Peninsula down to the southern portion of the Everglades. It also extends northwestward to a point in Jackson County, not far from the Alabama line, and northward along the Atlantic Coast to the lower Altamaha River, Georgia. The localities are indicated on the accompanying map (figure 2). Practically all of these records pertain to the species *Pomacea paludosa* (Say) (figure 1) and its subspecies, *P. p. miamiensis* (Pilsbry), the latter extending along the coast from Palm Beach County

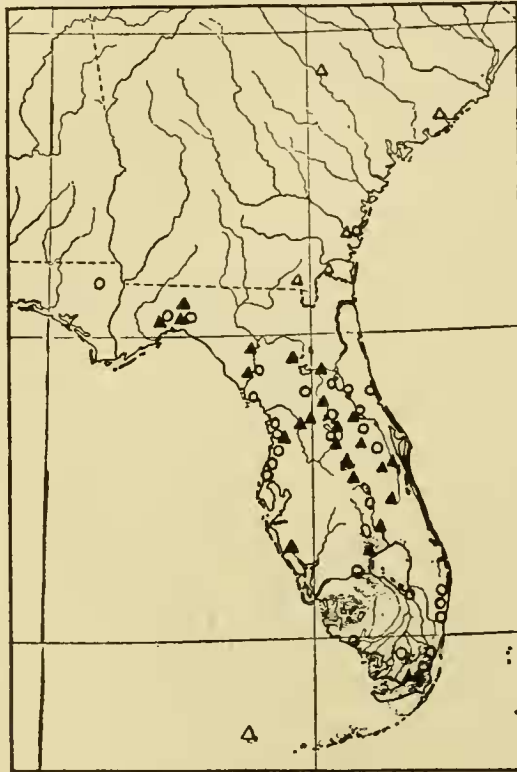


FIG. 2. Distribution of the Limpkin and of snails of the genus *Pomacea* in the Southeastern United States. Circles represent records of *Pomacea*; solid triangles, breeding localities of the Limpkin; hollow triangles, outlying records of the Limpkin.

southward. There is also a distinct species, *Pomacea pinei* (Dall), occupying an apparently restricted area along the Homosassa River in Citrus County, Florida.

Presumably the Limpkin is not connoisseur enough to discriminate between the various forms of *Pomacea*. Its breeding range in Florida, as given by Howell (Florida Bird Life, 1932, p. 200, fig. 23) and on the present map (figure 2), appears to be very nearly coextensive with the range of *Pomacea*.

A few records from outpost localities call for a little comment. The northwesternmost available record for the snails is on Spring Creek, three miles west of Marianna, Florida. Whether or not the Limpkin now occurs on Spring Creek, it very likely did so in former times (when its range and numbers were less restricted than at present), provided the snails were there in sufficient abundance. Neither the snails nor the bird seem to be known farther west toward the Mississippi Valley. Since the snails are evidently dependent on the presence of a certain amount of calcium carbonate in the soil and water, their occurrence on Spring Creek may be accounted for by a calcareous hammock belt occupying the area about Marianna (*cf.* R. M. Harper, Generalized Soil Map of Florida, Florida State Geological Survey, 1925.)

William Bartram's record (Travels, 1791, p. 49) of the Limpkin on the Altamaha in 1773 is nicely substantiated, in a way, by records of *Pomacea* from Darien and Hopeton Plantation,² on the lower part of that river. No recent occurrence of the Limpkin on the Altamaha seems to be known, although H. B. Bailey's statement (Bull. Nuttall Ornith. Club, vol. 7, 1883, p. 42) of its nesting in Georgia between the years 1853 and 1865 presumably refers to this part of the coastal region. Two records from South Carolina (Wayne, Birds of South Carolina, 1910, p. 35) evidently pertain to accidental wanderers beyond the range of their staple food.

My record (Auk, vol. 30, 1913, p. 493) of the Limpkin on Honey Island Prairie, Okefinokee Swamp, in May, 1912, while amply confirmed by later experience with the species in Florida, should not have led to the inclusion of the swamp as part of the Limpkin's normal range, as was done in the 1931 edition of the A. O. U. Check-List. The bird of 1912 was probably nothing more than a straggler, unable to maintain more than a very temporary existence in the Okefinokee, whose acid waters are quite unsuited to *Pomacea*. The bird could have readily reached the swamp by ascending the Suwannee River from its breeding haunts on the lower course of that stream.

² "Hopeton," the locality of the synonymous *Ampullaria hopetonensis* Lea, is the old name of a plantation on the south side of the Altamaha River, five miles above Darien, Georgia, a little upstream from Santo Domingo State Park.

The recent records on Mill Creek, Camden County, and vicinity are of special interest as perhaps reestablishing the Limpkin as a breeding bird of Georgia. Further investigation should be made to determine whether *Pomacea* also occurs there, and if so, in what abundance. All the available evidence indicates that the Limpkin's normal breeding range is restricted to areas where *Pomacea* is present in reasonable numbers.

A decided decrease in the numerical status of a species (such as has occurred with the Limpkin) is apt to result in its withdrawal from outlying portions of its range. This may account for the Limpkin's present apparent absence from the extreme limits of the known range of *Pomacea*, such as the Altamaha River in Georgia and Spring Creek in Florida.

According to Dr. Pilsbry, the snails may remain in water of some depth during the day but come into the shallows at the water's edge or even out of the water during the night.³ This habit of theirs might conceivably lead to some nocturnal activity on the part of the Limpkin, in order to secure the snails more readily. Very little seems to have been published on such a phase of its life history, although Nicholson remarks (*Auk*, vol. 45, 1928, p. 308), "All through the nesting season their calls are heard at night everywhere over the marshes."

ADDITIONAL NOTE.—The present form of Limpkin (*Aramus scolopaceus pictus*) occurs also in Cuba, the Isle of Pines, and Jamaica, where various species of *Pomacea* are found.

A. s. elucus inhabits Hispaniola and Puerto Rico, islands where *Pomacea* does not occur, as I am informed. According to Wetmore (*Bull.* 155, U. S. Nat. Mus., pp. 128-129, 1931), Sallé found Limpkins in the Dominican Republic "in heavy, humid forests where they lived principally upon mollusks." The large helices?

The following subspecies of Limpkin inhabit regions well supplied with *Pomacea* of many species, according to Dr. Pilsbry, but definite information on their food is not at hand.

A. s. dolosus, of southern Mexico and Central America.

A. s. scolopaceus, ranging from Colombia and Ecuador to the Guianas and Brazil.

A. s. carau, ranging from southern Brazil to eastern Argentina.

³ *Pomacea* kept in aquaria deposit their eggs on the glass above the water during the night.—ED.